

LIQUID CRYSTAL DISPLAY ELEMENT AND ITS PRODUCTION

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Inventor(s): MIYATA SHINICHI; TANAKA YOSHINORI; YAMAZAKI ATSUSHI

Applicant(s):: MATSUSHITA ELECTRIC IND CO LTD

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Abstract

PROBLEM TO BE SOLVED: To maintain the spraying uniformity of spacers, to enhance adhesion property between substrates and to improve a display grade by using ferromagnetic spacers and using magnetic field for holding the ferromagnetic spacers between glass substrates.

SOLUTION: The glass substrates with ITO electrodes are used for the substrate A and the substrate B and the ferromagnetic material spacers C are used for the spacers. The spacers C are sprayed by using a dry process spraying device by nitrogen blow. An acrylic resin material is used for an end-sealing material D. Further, the uniform magnetic field by a solenoid device is applied to the magnetic field F. The substrate A and the substrate B are bonded to each other by the end-sealing material D of an acrylic resin material within the magnetic field F, by which the ferromagnetic material spacers C are uniformly dispersed to the prescribed positions without movement between the substrate A and the substrate B. As a result, the spacing between the substrate A and the substrate B is made uniform and the execution of the uniform display is made possible.

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